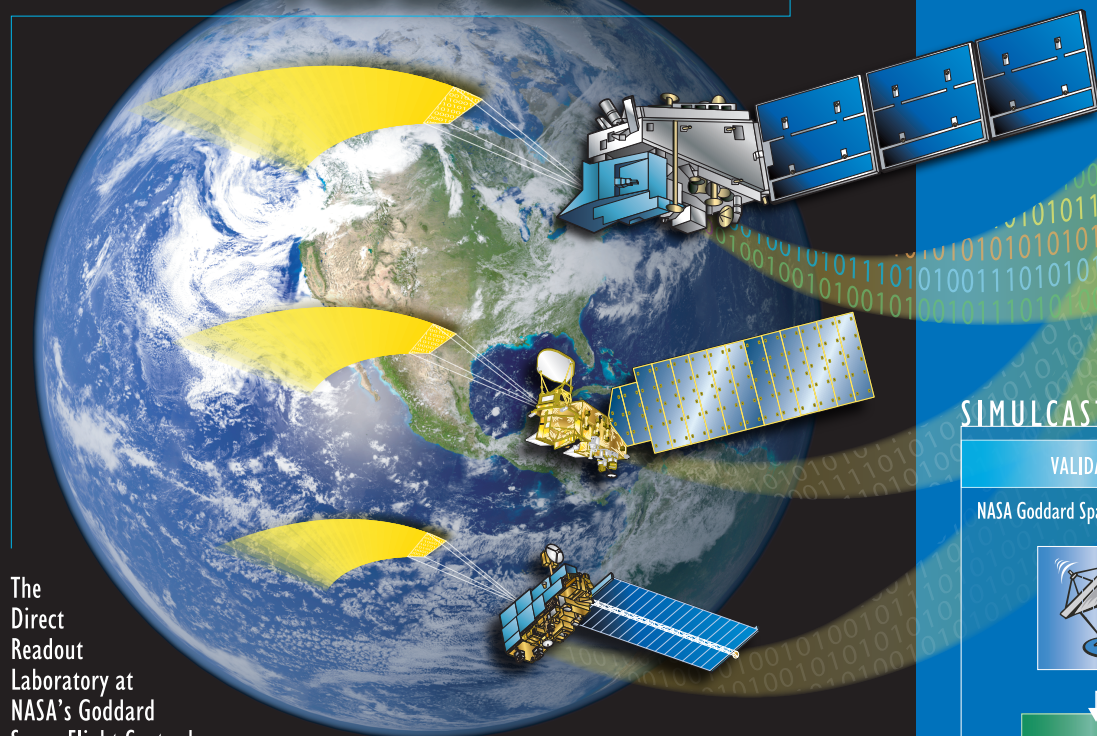


SIMULCAST REAL-TIME QUICKLOOK

MULTI-MISSION • MULTI-SPACECRAFT • MULTI-INSTRUMENT



The Direct Readout Laboratory at NASA's Goddard Space Flight Center has developed a Simulcast technology which — in real time and with a single Client — allows users to select and view quicklook data from multiple instruments and spacecraft. Simulcast is scalable and capable of supporting many users, both local and remote. Since its inception, Simulcast has proved to be a valuable tool for real-time validation of instrument data by NASA. Servers and Clients can be located virtually anywhere in the world, so Simulcast has the potential for a myriad of tactical, environmental and educational applications.



SIMULCAST ARCHITECTURE



When a pass starts, the Router receives the CCSDS packet stream and transmits the packets to one or more Processors. The Router filters the packets according to instrument.

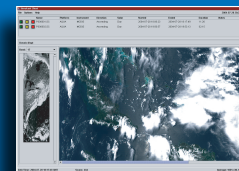


The Processor receives the filtered packets from the Router and extracts instrument data. The Processor calibrates the data, corrects the bow tie effect, and reduces data volume. The Processor transmits viewable data to the Server.



The Server receives viewable data from the Processor and notifies Clients that the new pass data is available. The Server simultaneously stores the data locally and transmits it to Clients and other Servers.

CLIENT



The Client receives the viewable data from the Server when a pass starts, or later via playback. The Client displays the pass data available from the Server. The user can select desired bands/resolution, obtain a true-color composite, and perform a side-by-side band comparison.

SIMULCAST CLIENT APPLICATIONS

